

IN THE CLAIMS:

1. A medical article comprising: (a) a ceramic or metallic region whose surface comprises a plurality of depressions; (b) a multilayer coating region comprising multiple polyelectrolyte layers deposited over said surface; and (c) a therapeutic agent disposed beneath or within said multilayer coating region.
2. The medical article of claim 1, wherein the multilayer coating region extends into the surface depressions of the ceramic or metallic region.
3. The medical article of claim 1, wherein the multilayer coating region extends over the surface depressions.
4. The medical article of claim 1, wherein said multilayer coating region is biodegradable.
5. The medical article of claim 1, wherein said multilayer coating comprises a polycation layer selected from polyallylamine, polyethyleneimine, poly(dimethyl diallyl ammonium chloride), protamine sulfate, chitosan, gelatin, spermidine, and albumin and a polyanion layer selected from poly(styrene sulfonic acid), poly(aniline sulfonic acid), polyacrylic acid, sodium alginate, polystyrene sulfonate, eudragit, gelatin, hyaluronic acid, carrageenan, chondroitin sulfate, carboxymethylcellulose.
6. The medical article of claim 1, wherein said multilayer coating contains from 2 to 100 polyelectrolyte layers.
7. The medical article of claim 1, wherein said medical article comprises a plurality of multilayer coating regions.
8. The medical article of claim 1, wherein said medical article comprises first and second multilayer coating regions that differ from each other with respect to the number or the

composition or both the number and composition of the polyelectrolyte layers contained therein.

9. The medical article of claim 1, wherein said ceramic or metallic region is a component of said medical article.

10. The medical article of claim 1, wherein said ceramic or metallic region is disposed as a layer over at least a portion of a medical article substrate.

11. The medical article of claim 1, wherein said medical article comprises a plurality of ceramic or metallic regions.

12. The medical article of claim 1, wherein said medical article comprises a ceramic region.

13. The medical article of claim 12, wherein said ceramic region is a porous ceramic region.

14. The medical article of claim 13, wherein said medical article comprises a plurality of porous ceramic regions of different composition and porosity.

15. The medical article of claim 13, wherein said porous ceramic region has an average pore size ranging from 0.3 to 100 nm.

16. The medical article of claim 13, wherein said porous ceramic region comprises a ceramic material selected from aluminum oxide, titanium oxide, iridium oxide and calcium phosphate ceramics.

17. The medical article of claim 13, wherein said medical article is a stent.

18. The medical article of claim 1, wherein said medical article comprises a metallic region.
19. The medical article of claim 18, wherein said depressions are laser cut depressions.
20. The medical article of claim 18, wherein said depressions are through-holes.
21. The medical article of claim 18, wherein said medical article is a stent.
22. The medical article of claim 1, wherein said therapeutic agent is selected from anti-thrombotic agents, anti-proliferative agents, anti-inflammatory agents, anti-migratory agents, agents affecting extracellular matrix production and organization, antineoplastic agents, anti-mitotic agents, anesthetic agents, anti-coagulants, vascular cell growth promoters, vascular cell growth inhibitors, a cholesterol-lowering agents, vasodilating agents, and agents that interfere with endogenous vasoactive mechanisms.
23. The medical article of claim 1, wherein said medical article comprises a plurality of therapeutic agents.
24. The medical article of claim 7, wherein said medical article comprises a first therapeutic agent disposed beneath or within a first multilayer coating region and a second therapeutic agent disposed beneath or within a second multilayer coating region.
25. The medical article of claim 1, wherein said medical article is an implantable or insertable medical device.
26. The medical article of claim 25, wherein said implantable or insertable medical device is a stent.
27. The medical article of claim 25, wherein said implantable or insertable medical device is selected from a catheter, a guide wire, a filter, a stent graft, a vascular graft, a vascular

patch, a shunt, a vena cava filter, a pacemaker, a pacemaker lead, and an orthopedic implant.

28. The medical article of claim 25, wherein said implantable or insertable medical device is adapted for implantation or insertion into the vasculature.

29. The medical article of claim 25, wherein said implantable or insertable medical device is adapted for implantation or insertion into the esophagus, trachea, colon, biliary tract, ureter, urethra, urinary tract, prostate or brain.

30. The medical article of claim 25, wherein said multilayer coating region is biodegradable.

31. The medical article of claim 1, wherein said multilayer coating further comprises metal or metal oxide nanoparticles.

32. A medical article comprising: (a) a ceramic or metallic region, (b) a multilayer coating region comprising multiple polyelectrolyte layers deposited over a surface of said ceramic or metallic region, said multilayer coating region comprising a plurality of protuberances; and (c) a therapeutic agent disposed beneath said protuberances.